

Listing of the Claims

1. (Currently Amended) A method for identifying a patient having an increased risk for developing breast precancer or breast cancer, said method comprising the following steps:
 - (a) introducing a ductal access tool into a breast duct, said access tool comprising an single elongated lumen;
 - (b) introducing a fluid into the breast duct through said elongated lumen;
 - (c) retrieving a ductal fluid sample from within the breast duct through said lumen, said ductal fluid being free of any ductal fluid from another duct of the breast;
and
 - (d) detecting a viral agent in the ductal fluid sample.
2. (Original) A method as in claim 1, wherein the viral agent is selected from the group consisting of a whole virus, a portion of a virus, a viral protein, a viral nucleic acid, and a viral marker, in the sample.
3. (Cancelled) A method as in claim 1, wherein the ductal fluid is retrieved by nipple aspiration.
4. (Cancelled) A method as in claim 1, wherein the ductal fluid is retrieved by placing a ductal access tool in the duct and infusing fluid into the duct through the tool and retrieving from the accessed duct through the tool a portion of the infused fluid mixed with ductal fluid.

5. (Cancelled) A method as in claim 3, wherein steps (a)–(c) of the method are repeated for at least one additional breast duct.

6. (Previously Presented) A method as in claim 1, wherein, steps (a)–(d) of the method are repeated for a plurality of breast ducts.

7. (Original) A method as in claim 1, further comprising analyzing the ductal fluid for abnormal cytology.

8. (Previously Presented) A method as in claim 1, wherein a viral agent is detected, and further comprising the steps of: periodically repeating steps (a)–(c); and monitoring a variable selected from the group consisting of a viral titer, concentration of a viral agent, and presence of a viral marker in the ductal fluid samples.

9. (Previously Presented) A method as in claim 8, wherein the viral agent is monitored and the viral agent is selected from the group consisting of a whole virus, a portion of a virus, a viral protein, a viral nucleic acid, and a viral marker by taking repeated periodic ductal fluid samplings.

10. (Original) A method as in claim 8, wherein the periodicity is selected from the group consisting of daily, weekly, biweekly, monthly, bimonthly, every six months, annually, and biannually.

11. (Original) A method as in claim 1, wherein the viral agent is selected from the group consisting of papilloma virus, Epstein-barr virus, and herpes virus.

12. (currently amended) A method of treating a patient at risk for or having a breast precancer or breast cancer, said method comprising the following steps:

- (a) introducing a ductal access tool into a breast duct, said access tool comprising a single elongated lumen;
- (b) introducing a fluid into the breast duct through said elongated lumen;
- (c) retrieving a ductal fluid sample from within the breast duct through said lumen;
- (d) detecting a viral agent in the retrieved ductal fluid sample from the breast duct;
and
- (e) delivering to the patient a composition comprising an antiviral agent specific for the detected viral agent.

13. (Original) A method as in claim 12, wherein the viral agent is selected from the group consisting of a whole virus, a portion of a virus, a viral protein, a viral nucleic acid, and a viral marker.

14. (Previously Presented) A method as in claim 12, wherein the antiviral agent is delivered intraductally to the breast duct in which the viral agent has been detected.

15. (Previously Presented) A method as in claim 12, further comprising repeating steps (a)-(c) for a plurality of additional breast ducts; and wherein a viral agent is detected in at least one of the fluid samples separately retrieved from the plurality of additional breast ducts.

16. (Cancelled) A method as in claim 12, wherein viral agent is detected in a fluid sample collected from a plurality of breast ducts.

17. (Original) A method as in claim 12, wherein the viral agent is selected from the group consisting of papilloma virus, Epstein-barr virus, and herpes virus.

18. (Original) A method as in claim 12, wherein the antiviral agent is selected from the group consisting of an anti-HPV viral agent, and anti-EBV viral agent, and an anti-herpes viral agent.

19. (Previously Presented) A method as in claim 12, wherein said delivering step includes delivering the composition comprising said antiviral agent systemically.

20. (Previously Presented) A method as in claim 14, wherein analyzing comprises measuring a quality of the ductal fluid or ductal cells *in situ*.